REMARKS/ARGUMENTS

The office action of October 27, 2003 has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claims 1-14, 16-18, 21, 22 and 26 remain in this application. Claims 15, 19, 20 and 23-25 have been canceled without prejudice or disclaimer. New claim 27 has been added.

Applicants have not received any indication from the Examiner that references cited with Information Disclosure Statements on April 30, 2003 and August 7, 2003 have been made of record. Accordingly, applicants respectfully request the Examiner to return an initialed copy of the PTO-1449 form filed April 30, 2003 and the e-IDS form filed August 7, 2003 with the next communication in the instant application.

Preliminarily, applicants note with appreciation the indication that the application contains allowable subject matter. Specifically, claims 5, 13 and 16 have been objected to for being dependent upon a rejected base claim, but would be allowable if amended to incorporate all the features of their ultimate base claim and any intervening claims.

Claims 16, 17 and 21 have been rewritten in independent form. Claim 18 has been amended to depend from claim 16 and claim 22 has been amended to depend from claim 21. New claim 27 has been added and is the same as claim 18, but for its dependency on claim 17.

Claims 1, 6-9, 14 and 23-26[1] stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent 6,434,117 to Momona. Claims 2-4 and 10-12 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent 6,538,758 to Ikegawa. Claims 15 and 19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent 6,600,756 to Haviland. Claims 17, 20 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haviland in view of Momona. Claims 18 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haviland in view of U.S. publication 2002/0141418 to Ben-Dor. Applicants respectfully traverse these rejections.

[1] Numbered paragraph 1, on page 2 of the action indicates that claims 1-14 and 23-26 were rejected. This appears to be in error as the paragraphs associated with numbered paragraph 1 provide no support or reference to a rejection of claims 2-5 and 10-13 based on Momona alone. Indeed, claims 5 and 13 have been identified as allowable elsewhere in the action.

§ 102 Rejections Based on Momona

The action contends that Momona discloses all the features of independent claims 1 and 9. Claim 9 includes the steps of: (1) at a transmitting node, translating a bus-generic request for a quality-of-service connection into a bus-specific request for time-guaranteed delivery services; (2) from the transmitting node, transmitting the bus-specific request to an intended receiving node on the bus; (3) at the intended receiving node, checking to determine whether sufficient resources are available to allocate an isochronous data channel on the bus and, in response to such availability, allocating the isochronous data channel; (4) notifying the transmitting node of the allocated isochronous data channel; and (5) from the transmitting node, transmitting data packets to the intended receiving node using the allocated isochronous data channel. To show steps (1) and (2), the action relies on col. 5, lines 19-24 of Momona. To show step (3), the action relies on col. 6, lines 32-35 of Momona and to show steps (4) and (5), the action relies on col. 6, lines 44-47 of Momona.

In contrast to step (1) of claim 1, Momona at col. 5, lines 19-24 describes sending a request for setting up an asynchronous-mode channel and not a bus-specific request for time guaranteed delivery services. Thus, col. 5, lines 19-24 of Momona neither teaches nor suggests translating a bus-generic request for a quality-of-service connection into a bus-specific request *for time-guaranteed delivery services*; or transmitting the bus-specific request to an intended receiving node on the bus as recited in claim 1.

Rather than at the intended receiving node, checking to determine whether sufficient resources are available to allocate an isochronous data channel on the bus and, in response to such availability, allocating the isochronous data channel as recited in claim 1, Momona at col. 6, lines 32-35 describes acquiring ownership of a channel for *asynchronous communication* from the isochronous resource manager.

For at least the foregoing reasons, Momona does not teach or suggest every feature found in independent claim 1. Independent claim 9 has some features similar to those discussed above with respect to claim 1. Thus, for at least substantially the same reasons as claim 1, claim 9 is patentably distinct from Momona. Claims 6-8 and 14, which directly or indirectly depend from one of claims 1 and 9, are considered allowable over the art of record for at least the same

reasons set forth above, and further in view of the additional advantageous features recited therein.

The action contends that Momona discloses all the features recited in claim 26. Claim 26 calls for a system including a first computer node and a second computer node coupled over a communication bus that provides both asynchronous and isochronous communication modes, wherein the first computer node transmits a request for time-guaranteed bandwidth using the isochronous communication mode to the second computer node and, in response to detecting a time-out condition for failing to receive a response to the request, transmits data packets to the second computer node using the asynchronous communication mode. To show the claim 26 feature of "in response to detecting a time-out condition for failing to receive a response to the request, transmits data packets to the second computer node using the asynchronous communication mode," the action relies on col. 11, line 62 to col. 12, line 5 of Momona.

Momona describes decrementing a node count value by one if reservation messages do not arrive at a source node for a predetermined interval. If the node count value reduces to zero, the isochronous resource manager releases ownership of the allocated channel number and bandwidth. Hence, Momona describes releasing an isochronous channel after a channel has been established. In stark contrast, the invention of claim 26 however, involves failing to receive a response to a request for time-guaranteed bandwidth using the isochronous mode transmitted by the first computer node. Namely, claim 26 recites that in response to detecting a time-out condition for failing to receive the response to the request, the first computer node transmitting data to the second computer node using the asynchronous communication node. Moreover Momona is wholly devoid of any teaching or suggestion of the first computer node transmitting data to the second computer node using the asynchronous communication mode in response to detecting a time-out condition for failing to receive the response to the request as recited in claim 26. For at least these reasons, Momona does not teach or suggest every element of independent claim 26.

§ 102 Rejections Based on Ikegawa

The action alleges that Ikegawa discloses all the features of claims 2-4, which depend on claim 1, and claims 10-12, which depend on claim 9. To anticipate claims 2-4 and 10-12 however, Ikegawa would have to anticipate claims 1 and 9.

To show the claim 1 features of (1) at a transmitting node, translating a bus-generic request for a quality-of-service connection into a bus-specific request for time-guaranteed delivery services; and (2) from the transmitting node, transmitting the bus-specific request to an intended receiving node on the bus, the action relies on col. 9, lines 1-5 of Ikegawa. This portion of Ikegawa describes an isochronous gap, which represents an idle period necessary for confirming prior to isochronous transfer that the bus is in an idle state. Nowhere does this portion, much less any portion of Ikegawa teach or suggest translating a bus-generic request for a quality-of-service connection into a bus-specific request for time-guaranteed delivery services as recited in claims 1 and 9.

Claim 2, which depends from claim 1, and claim 19, which depends from claim 9, each further recite setting a timer in the transmitting node and, in response to detecting a time-out condition based on the request transmitted in step (2), transmitting the data packets to the intended receiving node using the asynchronous delivery mode. The action relies on col. 9, lines 35-38 of Ikegawa to show setting a timer in the transmitting node and col. 8, ll. 21-27 of Ikegawa to show transmitting the data packets to the intended receiving node using the asynchronous delivery mode. Significantly, col. 9, lines 35-38 of Ikegawa does not provide a teaching or suggestion of detecting a time-out condition *based on the request transmitted in step (2) (i.e., a request for time-guaranteed delivery services)*. Indeed, Ikegawa is merely describing a typical 125 μs bus cycle and how bus arbitration occurs. Moreover, in col. 8, ll. 21-27, Ikegawa at most describes that asynchronous transfer is available. That is, Ikegawa is totally devoid of any suggestion of transmitting the data packets to the intended receiving node using asynchronous delivery mode responsive a detecting a time-out condition (i.e., the isochronous data channel not being available) as claimed. For at least the foregoing reasons, claims 2-4 and 10-12 are patentably distinct from Ikegawa.

§ 102 Rejections Based on Haviland

This rejection is deemed moot as claims 15 and 19 have been canceled without prejudice or disclaimer.

§ 103 Rejections Based on Haviland and Momona

The action alleges that Haviland discloses all the features of the claim 17 invention, but for (5) periodically transmitting from the transmitting node to the intended receiving node a "keep alive" message indicating that the transmission is continuing; and (6) in the intended receiving node, monitoring the "keep alive" message periodically transmitted by the transmitting node and, in response to detecting that the "keep alive" message is no longer being periodically transmitted, deallocating the bus resources. To remedy this defect, the action alleges that these features of claim 17 are found in col. 8, lines 61-67 of Momona.

According to Momona, in step 1205 (Fig. 12) a reservation message is sent from the application layer of the destination node to the application layer of the source node, "indicating the bandwidth the destination node wishes to receive through the assigned channel. Momona, col. 8, lines 48-52. The reservation is refreshed by repeatedly transmitting the reservation messages from the destination mode. Momona, col. 8, lines 52-53. In step 1206, a timer is started following execution of step 1205. Momona, col. 8, lines 53-54. When no reservation message is transmitted by the destination mode during the time-out period the timer, the application layer of the destination node issues a session release indication, which causes a session release request to be sent from the destination node to the a multicast manager. Momona, col. 8, lines 61-68.

In contrast, to Momona the claim 17 invention calls for, periodically transmitting *from the transmitting node* to the intended receiving node a "keep alive" message indicating that the transmission is continuing. According to Momona, a reservation message is periodically transmitted from the destination node to the transmitting mode. Thus, even assuming, but not admitting, that the reservation message is a "keep alive" message, it is not transmitted from the transmitting node as required in claim 17. For at least this reason, the combination of Haviland and Momona, even if proper, does not result in the claim 17 invention.

Claim 21 stand rejected over the combination of Haviland and Momona. Claim 21 calls for monitoring a "keep alive" message periodically *transmitted by the transmitting node* and, in

response to detecting that the "keep alive" message is no longer being periodically transmitted, deallocating the bus resources. To show this feature of claim 21, the action relies on Momona. As discussed with respect to claim 17, in Momona, a reservation message is periodically transmitted from the destination node to the transmitting mode. Therefore, even assuming, but not admitting, that the reservation message is a "keep alive" message, it is not transmitted from the transmitting node as required in claim 21. For at least this reason, the combination of Haviland and Momona, even if proper, does not result in the claim 21 invention.

§ 103 Rejections Based on Haviland and Ben-Dor

Claims 18 and 22 have been amended over the combination of Haviland and Ben-Dor. As amended, claims 18 and 22 depend from claims 16 and 21, respectively. Significantly, Ben-Dor does not remedy the defects of Haviland alone or in combination with Momona. Thus, claims 18 and 22 are patentably distinct over the combination (even if proper) of Haviland and Ben-Dor and the combination (even if proper) of Haviland, Momona and Ben-Dor.

CONCLUSION

It is believed that no fee is required for this submission. If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

All rejections having been addressed, applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicit prompt notification of the same.

Respectfully submitted,
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